NOTES.

The list of New Year Honours includes one earl, three barons, seven Privy Councillors and three in Ireland, nineteen baronets, and a number of appointments to orders of knighthood. Sir Bertrand Dawson, Physician in Ordinary to the King, and Dean of the medical faculty of the University of London, is one of the new peers. Among the new knights are Prof. Arthur Schuster; Dr. E. A. Wallis Budge, Keeper of Egyptian and Assyrian Antiquities, British Museum; Col. W. A. Churchman, Ministry of Munitions Explosives Department; Dr. J. Court, known by his researches on diseases of miners; Mr. F. C. Danson, chairman of the Liverpool School of Tropical Medicine; Mr. D. E. Hutchins, for his services to forestry; Mr. James Kemnal, for public services in connection with the manufacture of munitions; Mr. F. S. Lister, research bacteriologist, South African Institute for Medical Research; Mr. H. J. Mackinder, M.P.; and Dr. F. G. Ogilvie, Director of the Science Museum, South Kensington. Prof. S. J. Chapman, Joint Permanent Secretary, Board of Trade, and Sir Richard Glazebrook have been promoted from C.B. to K.C.B. Dr. G. R. Parkin has been promoted to the rank of K.C.M.G., and Mr. H. N. Thompson, Chief Conservator of Forests, Nigeria, has received the honour of C.M.G.

We regret to announce the death on January 4, at seventy-eight years of age, of Sir Thomas R. Fraser, F.R.S., emeritus professor of materia medica, University of Edinburgh, and Honorary Physician-in-Ordinary to H.M. the King in Scotland.

The Prince of Wales, who has recently become vice-patron of the Royal Geographical Society, will be present at the meeting of the society on Monday, February 2, at the Central Hall, Westminster, at 8.30 p.m., when a paper will be read by Major-Gen. Sir Frederick Sykes on "Air Routes of the Empire."

The *Times* correspondent at New York reports that violent earthquake shocks were felt over the greater part of the Mexican Republic on Saturday night and Sunday, January 3–4. The State of Vera Cruz seems to have suffered most. The Mexican Government Observatory places the centre of the disturbance near the volcano of Orizaba. A shock was recorded by the seismograph at Kew Observatory at 5.25 a.m. on January 4.

On Tuesday next, January 13, at 3 o'clock, Sir John Cadman will deliver the first of two lectures at the Royal Institution on (1) "Modern Development of the Miner's Safety Lamp," and (2) "Petroleum and the War." The Friday evening discourse on January 16, at 9 o'clock, will be delivered by Sir James Dewar on "Low-temperature Studies," and on January 23 by the Hon. Sir Charles Parsons on "Researches at High Pressures and Temperatures."

The Ramsay Memorial Fund has received from Prof. H. Kamerlingh Onnes a very substantial contribution of 1571*l.* 9*s.* 5*d.*, which has been given or promised by donors in Holland. These generous contributions are evidence of the sympathy felt in Holland for British science and scientific workers, and the respect so widely felt in that country for the memory of the late Sir William Ramsay. Among the subscriptions are:—Philips Gloeslampenfabriek, 500*l.*; Fransch Hollandsche Oliefabrieken, Delft, 300*l.*; Nederlandsche Gist & Spiritusfabriek, Delft, 300*l.*; Van den Bergh's Fabrieken, Rotterdam, 300*l.*; and Lym & Gelatinefabriek, Delft, 100*l.*

Announcement is made in the *British Medical Journal* that the eighty-eighth annual meeting of the British Medical Association will be held at Cambridge next summer, under the presidency of Sir Clifford Allbutt, Regius professor of physic in the University, who will deliver his address on the evening of Tuesday, June 29. The sectional meetings for scientific and clinical work will be held on June 30, July 1, and July 2, the mornings being given up to discussions, and the afternoons to clinical and laboratory demonstrations. There will be twelve sessions, of which five will meet on each of the three days, and the remainder each on one day. The annual representative meeting will begin on June 25. The annual dinner has been fixed for July 1, and on the evening of July 2 Dr. G. S. Graham-Smith will give the popular lecture. Saturday, July 3, the last day of the meeting, has been set apart for excursions to places of interest in the neighbourhood.

Further excavations at the well-known Anglo-Saxon site of Ravensbury Manor, Mitcham, have brought to light numerous remains of the period. The old gravel-pit is being extended, and further relics will no doubt be found. Six graves have so far been opened up, with the bones of two giant chieftains and a cripple with a diseased thigh-bone. Two swords, a bronze buckle, and an earthenware jar have been found. At earlier excavations no fewer than a hundred skeletons were exhumed. The first discovery was made in 1848, and in 1895 the opening-up of a new gravel-pit by Mr. G. P. Bidder brought to light a quantity of objects. Later digging by Col. H. F. Bidder produced knives, spear-heads, a few swords, pottery, shield-bosses, saucer-shaped brooches, and some beads, whilst a number of female skeletons were found to have been thrown carelessly into the graves of the men. One grave contained a coin of Constantius II., and Mr. Reginald Smith was of opinion that the date of the cemetery was the first half of the fifth century. Great care will, it is understood, be taken to preserve anything of value that comes to light, but at present nothing new has been found.

The annual meeting of the Iron and Steel Institute will be held on Thursday and Friday, May 6 and 7, at the Institution of Civil Engineers, Great George Street, London, S.W.1. The retiring president, Mr. Eugene Schneider, will induct into the chair Dr. J. E. Stead, the new president-elect. The council is prepared to consider applications for grants from the Carnegie Fund in aid of research work, of such value as may appear expedient, but usually of the value of 100*l.* in any one year. The awards are made irrespective of sex or nationality. Special forms, on which candidates should apply before the end of

February, can be obtained from the secretary of the institute. The research work must be on some subject of practical importance relating to the metallurgy of iron and steel and allied subjects. The results of research work must be communicated to the institute in the form of a report. By the invitation of the retiring president, Mr. Eugene Schneider, arrangements are in progress for holding the autumn meeting in France next September, provided no unforeseen contingency occurs. Early notice will be given of the precise date and place of meeting and the localities which will be visited.

WE note with much satisfaction that the Government of New Zealand has extended the absolute protection of seals in the area under its control for a period of three years, and that the Prime Minister of Tasmania has decided not to renew the lease of Macquarie Island to the company which so mercilessly exploited the wild life over which it had obtained control. Quite apart from the hideousness of the methods of slaughter, this protection has barely come in time to save these creatures from extermination. Although this danger has, time and again, been pointed out, the authorities allowed commercial interests to prevail. Yet the penguins, seals, sea-lions, and sea-elephants which contrived to maintain a hold on life in those inhospitable regions represent types of animal life which it was our bounden duty to preserve. A hope has been expressed that Macquarie Island may be set apart as an inviolable sanctuary for Antarctic life, and we trust not only that this will be done, but also that steps will be taken to guard against marauders who may be tempted to make occasional raids for the sake of the profits to be gained. To this end the island might be used for the purposes of a biological and meteorological station. Before it is too late we hope that the matter of protection for the whales in the Antarctic seas will also speedily find a place on the Statute-book. The subject has been long under consideration, but as yet nothing has been done on account of the opposition of commercial interests.

DURING 1919 many meteorological features of special interest occurred, and some of these introduced problems well worth discussing. In July and October the weather was exceptionally cold and dry over the British Isles, and the rainfall in both months for the whole country was only 55 per cent. of the normal for the thirty-five years ended 1909. The cold in the autumn was quite remarkable. The Greenwich observations show that the mean temperature for the year was 48·8° F., which is 1·3° colder than the normal for the thirty-five years ended 1915; the mean maximum temperature was 56·7°, and the mean minimum 40·9°. May, June, August, and December were the only months with an excess of temperature. The warmest month was August and the coldest February. There were four months, February, July, October, and November, with a deficiency of temperature amounting to 4° or more. December was 2·4° warmer than the normal, and 3·4° warmer than November, when there were only five days with 50° or above, whilst December had thirteen such days. The total rainfall for the year was 23·4 in., which is 0·1 in. less than the normal. December was the wettest month of the year, and the other months with an excess of rain were January, February, March, and April. The driest month was May with 0·36 in. March and December both registered precipitation on twenty-two days; during the year precipitation was measured on 175 days. Bright sunshine was registered for 1489 hours, which is eleven hours more than the normal for the year. May had the greatest duration of sunshine, 268 hours, and December the least, 21 hours.

THE Report of the Director-General of Public Health, New South Wales, for the year ended December 31, 1917, has recently reached us. It contains the usual full statistical data of the health of the State, and reports on the work of the microbiological laboratory. The latter is chiefly devoted (pp. 150–280) to an exhaustive inquiry on an epidemic of acute polio-encephalo-myelitis. Some 134 cases occurred, mostly in children, of whom 94 died. The chief features were fever in all cases, convulsions in many, and paralysis in a few, with rigidity and mental lethargy, confusion, and drowsiness as a rule. The disease was proved to be the meningitic or cerebral form of acute poliomyelitis (infantile paralysis, Heine-Medin disease).

IN the Journal of the Royal Society of Antiquaries of Ireland (vol. xlix., part 3, June, 1919) Mr. H. S. Crawford publishes a well-illustrated article on the mural paintings and inscriptions at Knockmoy Abbey, which are now partially destroyed, but once covered the entire northern wall of the chancel of the abbey church. The writer adduces arguments to show that they probably date from the sixteenth century. "At an earlier period pictures would hardly have been allowed in a Cistercian church, and at a later the costumes of the figures and the forms of the inscriptions would probably have been different."

IN the Journal of the Royal Anthropological Institute (vol. xlix., 1919, January–June) Prof. F. G. Parsons presents the results of his anthropological examination of a number of German prisoners of war interned in England. He thus states his conclusions: "The more one thinks of it, the more one is convinced that since the sixth century the broad-headed Alpine race has been slowly and steadily supplanting the long-headed Nordic type, not only in Prussia, but in every part of Germany, and the prisoners at our disposal give no reason for thinking that there is any part of Germany in which the Alpine or Slav characteristics have not dominated the Teutonic or Nordic." This view is based on head and face shape and coloration, and, so far as the evidence goes, it is supported by that of stature. The tall provinces are in the north and west of Germany, while the shorter men inhabit the south and east. Curiously enough, after what we have heard of the Pomeranians, they are a short race, the average height being 5 ft. 6·4 in. Of course, it is possible that the exceptionally tall men were drafted into special corps, such as the Guards and Marine Artillery, and that these were not fully represented in the material at the Prisoners' Bureau.

SIR E. BRABROOK has reprinted from the *Anglo-French Review* for October an interesting article entitled "The Anthropological Institutes of France and the United Kingdom." The Société d'Ethnologie de Paris was founded in 1839, and the Ethnological Society of London in 1844. In 1859 the Société d'Anthropologie de Paris was founded by Pierre Paul Broca, and the Anthropological Society of London by James Hunt in 1863. The London society had at first a chequered career; the question of the plurality of races had a political bearing, and some communications made to the society on the characteristics of the negro race were thought to overstep the line which restricts scientific societies in their choice and treatment of subjects for discussion. The question was finally solved by the foundation of the Anthropological (now Royal Anthropological) Institute of Great Britain and Ireland in 1870, which has since enjoyed a useful and prosperous career, though it has never received a State grant such as is enjoyed by its French sister, and has not obtained adequate support from those interested in the problems of our Indian and Colonial Empires. A project has recently been initiated for the establishment among the anthropologists of the Allied nations of a permanent central office of the International Institute of Anthropology, a scheme which, if framed on satisfactory lines, will do much to co-ordinate the work now carried on in Great Britain and on the Continent. Whether Germany will ultimately be invited to share in this organisation depends on the future conduct of that country.

PROF. A. KEITH's important twenty-first Robert Boyle lecture, entitled "Nationality and Race from an Anthropologist's Point of View," has been published by the Oxford University Press (price 2*s.* net). Prof. Keith begins by classifying the progress of human culture into two stages: that of natural and artificial subsistence. "Man's great bowel, including the cæcum, appendix, and colon, which answered his needs well when his dietary was coarse and uncooked, is ill-contrived to deal with foods which are artificially prepared and highly concentrated." The thesis which he proposes is that "in our modern racial strifes and national agitations we see man's inherited tribal instincts at war with his present-day conditions of life." This he illustrates by a survey of racial and national problems in the United States, Canada, Spanish America, Australia and New Zealand, South Africa—where "the problems of race and of nationality appear in a more acute and tangled form than anywhere else in the world"—and Europe, and by a reference to the Jewish question. As regards the Irish problem, Prof. Keith remarks that, "except for a trick of speech or a local mannerism, the most expert anthropologist cannot tell Celt from Saxon, or an Irishman from a Scotsman. There are, to be sure, certain physical types which prevail in one country more than in another; but I do not know of any feature of the body or any trait of the mind, or of any combination of features or traits, which will permit an expert, on surveying groups of university students, to say this group is from Scotland, that from Wales, the third from Ireland, and the fourth from England." Prof. Keith ends by a strong plea that a knowledge of tribal and racial spirit is essential for statesmen.

PROF. W. TRELEASE discusses the bearing of the distribution of some elements of the existing flora of Central America and the Antilles on former land connections in this area (Bull. Geol. Soc. Amer., No. 29, pp. 649–56). The most important evidence is supplied by the genus Agave, which includes the familiar century plant. Its chief centre is Mexico, but it ranges from Arizona to the Isthmus of Panama, and occurs also in tropical Florida and northern equatorial America. It is represented in the West Indies by about fifty endemic species comprising six distinct types, and from their distribution in the islands the author concludes that the genus was derived from the mainland of Central America at some late Tertiary or early Quaternary time when islands and continents were continuous. Later they spread through the chain over continuous land; the continuity was broken by subsidence or faults when the very deep Anegada Passage, which separates the islands of St. Thomas and St. Croix, was formed, and later subsidences have caused in succession the deeper and lesser water gaps by which the Antilles are divided into groups successively more or less distinct in their Agave flora. These conclusions harmonise with the fact indicated by Eggers: that the greatest break between the northern and southern elements in the Antillean flora coincides with the deepest, and presumably the oldest, break in the Antillean bridge, now represented by the Anegada Passage.

THE geological work on the Western Front forms the subject of an interesting paper by Mr. W. B. R. King in the *Geographical Journal* for October (vol. liv., No. 4). Mr. King was Geologist at General Headquarters in France for more than three years. His problems were mainly concerned with water-supply, which at times presented much difficulty in view of the amount required. The advice of the geologist was also of great importance in mining and tunnelling operations and in the construction of dug-outs.

WE have received a copy of the Rain Map of Australia for the year 1918, published by the Commonwealth Government. It gives the total rainfall for the year and separate maps for each month. Some small inset maps show the areas with rainfall above the average in recent years. The year 1918 was in marked contrast to the two preceding years, both of which had an unusual amount of precipitation. In some respects it resembled 1915, when there was severe drought in the interior of New South Wales and Queensland. Rainfall was good until the end of February, when drought set in over the central and eastern parts of Australia. The westerly, or, as this chart names it, the Antarctic, rainfall in the south seems to have been fairly normal, but its influence was restricted to the coasts in the south-west and south-east. South Australia suffered from drought, and throughout the wheat-belt there was a serious deficiency in spring rains. A cool spring, however, minimised this want, and cereal crops were fairly good in Western Australia, South Australia, and Victoria, but largely a failure in New South Wales and Queensland.

THE shortage of potassium salts and nitrates during the war has directed attention to many possible sources of supply previously neglected. In Memoir 14 of the Geological Survey of South Africa Messrs. Frood and Hall discuss the deposits of saltpetre found as an interstitial filling along the bedding planes at the base of the valleys in a region of hard ferruginous shale near Prieska and Hay, Cape Province. No satisfactory estimate is available of the average composition and depth of the deposits. Nitrification of the animal excreta accumulating near the sheltered portions of the cliffs is believed to be the source of the nitrate, which then passed in solution along the joint planes, producing irregular encrustations and pockets. If this be the correct explanation of their origin, it is improbable that the deposits could be of any great depth.

THE Summary of Progress of the Geological Survey of Great Britain for 1918 (issued in 1919) is of special interest through its description of the bauxitic nature of certain Carboniferous strata in Ayrshire. A clay of Millstone Grit age has been found to be a good refractory, with 26–50 per cent. of alumina, 28–50 per cent. of silica, and combined water 7·5–15 per cent. Most of the alumina is combined with silica, probably as kaolin, but there remains an excess, as in bauxitic clays. This excess is, however, not easily soluble in hydrochloric acid, unlike that in bauxite. Oolitic varieties of the bed contain most free alumina. Basaltic lavas underlie the clay, and the conditions that produce laterite and bauxite seem to have prevailed in southern Scotland in Upper Carboniferous times. The discovery and value of this material will stimulate observation in other localities of Carboniferous rocks. It is pointed out that the quality of the material may vary considerably, and that the presence of titanium dioxide, which occurs as rutile, in a greater proportion than 5 per cent. reduces the refractory property considerably. In the same Summary of Progress a record is given of the personal and official services rendered by the staff of the Geological Survey during the five years of war. Among others, our congratulations go out to Capts. E. B. Bailey and J. E. Richey.

IN a valuable paper read before the Royal Society of Edinburgh (Proceedings, vol. xxxix., 1919, pp. 157–208), Prof. C. G. Knott continues his investigations on the propagation of earthquake-waves through the body of the earth. In his new analysis Prof. Knott does not assume any relation between the velocity of propagation and the distance from the earth's centre. His work, which must have been most laborious, leads him to the following conclusions. He finds that the seismic rays of both the condensational and the distortional waves are concave outwards until they reach a depth of about three-tenths of the earth's radius. To this depth, then, the velocity of propagation must increase with the depth. It then becomes nearly constant, but at still greater depths it decreases a little, so that the rays there are slightly convex outwards. The data furnished by seismological observatories enable him to trace the rays to a depth of six-tenths of the earth's radius, but not beyond. At or near this depth the distortional wave seems to die out, for at arcual distances of more than 120° from the epicentre their characteristic appearance in our seismograms is lost. Dr. Knott thus arrives at a conception of the earth's interior which is practically the same as that advanced by Mr. Oldham thirteen years earlier: that the earth consists of an elastic solid shell down to a depth of about half the earth's radius, that here the rigidity breaks down, and that at a depth of about six-tenths of the earth's radius the elastic solid shell gives place to a non-rigid nucleus of measurable compressibility.

SOUTHPORT, by its report of the meteorological observations made at the Fernley Observatory during the year 1918 and discussed by Mr. Joseph Baxendell, the meteorologist to the Borough Corporation, adds much to our knowledge of the weather at one of the principal English health resorts. The report contains more than detailed observations of the weather, and now that the observatory has continued for forty-seven years the results yield values of much importance. Two local atmospheric pollution stations were started during the year, one to be representative of urban and the other of rural Southport. Hourly wind-direction-frequency normals are given numerically, as well as in diagram form as a frontispiece; they show a preponderance of southerly winds in the winter and of westerly and north-westerly winds from off the sea during the day-hours in the summer months. Mr. Baxendell hopes definitely to establish a marked and persistent meteorological periodicity of nearly 5·1 years, which, he states, is especially noticeable in wind direction. The year 1918 was marked by general warmth and wetness, resulting from a very abnormal predominance of winds from the warmer and more humid half of the compass (south-east through south to west). The table giving the rainfall with different wind directions shows that 78 per cent. of the total amount of rain was with winds from these directions.

THE Fifth and Sixth Reports of the Director of Veterinary Research of the Union of South Africa contain an account by Mr. H. H. Green of an improved method for the estimation of small quantities of arsenic by micro-titration with iodine. It was used for determining the fate of ingested and injected arsenic in sheep. Bacteria capable of oxidising sodium arsenite and reducing sodium arsenate have been isolated from arsenical cattle-dipping tanks. Examination of maize-milling products by dietetic experiments upon pigeons shows a close parallelism between the distribution of vitamine and phosphorus in individual maize-kernels, but not in different samples of maize. In the absence of information about the original grain and the extent of milling, microscopic examination would provide a safer test than the estimation of phosphoric acid. An extensive study of diets containing varying amounts of vitamine shows that the daily demand of pigeons for vitamine is not constant, but depends upon the extent of exogenous metabolism.

TECHNOLOGIC Paper No. 139 of the Bureau of Standards, Washington, U.S.A., contains an account of tests of light aluminium casting alloys. Among other tests, a number were carried out to determine to what extent the mechanical properties of cast alloys could be improved by heat treatment as follows:—Heating for two hours at 500° C., following by cooling in air, the specimens then being left to age several days before testing. Some thirty specimens were so treated, and in all but five or six cases there was a resulting increase in tensile strength of from 5 to 50 per cent. In cases where the heat treatment showed a decrease in strength, the whole group of bars of the heat was of inferior quality, cast and heat-treated ones alike. The hardness was increased by the heat treatment. The effect on elongation was more erratic, but in general a decreased elongation was found in the heat-treated specimens. It would appear that the treatment of light aluminium castings has commercial possibilities. Copies of the paper may be obtained by addressing a request to the Bureau of Standards.

THE *Technical Book Review Index* issued by the Carnegie Library at Pittsburgh, U.S.A., appears quarterly, and is a useful guide to new books on pure and applied science. The compilers have not had the actual books before them while preparing the index, but have obtained their information entirely from reviews that have appeared in scientific and technical journals. The accuracy of the information given depends therefore, in each case, upon the care taken in the review consulted. Books are arranged in the alphabetical order of the authors' names. The title of each book is followed by full reference to journals where reviews of the book may be found, and a short quotation from each review, giving, where possible, some idea of the scope and object of the work. The compilers have wisely refrained from expressing any opinion of their own as to the value of each book, although it appears that an attempt in this direction is made upon the index-cards of the library at Pittsburgh from which this review index has been prepared. It will, however, be found that the extracts quoted from reviews give, in most cases, adequate assistance in forming an opinion as to the merits of each work.

PHOTO-ELECTRIC activity seems destined to play an important part in technical photometry. In No. 349 of the Scientific Papers of the U.S. Bureau of Standards Mr. K. S. Gibson gives an account of experiments on photo-electric spectrophotometry by the null method, using potassium hydride cells now on the market. Such cells give a maximum response, usually near $460\mu\mu$; consequently, the method admirably supplements the visual and photographic methods, being best in the blue and violet parts of the spectrum, where they become poor, and becoming poor only after they have become trustworthy. By employing the null method, first brought out by Richtmyer, errors due to want of direct proportionality between photo-electric current and exciting radiant power, and to the current through the cell when not irradiated, are eliminated. Experiments have also been carried out on diffuse spectral reflection, and the method is applicable to the measurement of the relative radiant power of two sources and to the measurement of fluorescence. In another publication of the same series (No. 344) Messrs. W. W. Coblentz and H. Kahler give data as to the change in the electrical resistance of the sulphide of silver and of bismuth when exposed to radiations of wave-lengths extending from $0{\cdot}6\mu$ to 3μ. Galena, cylindrite, pyrites, and jamesonite did not show any noticeable sensitivity. At very low temperatures the intrinsic sensitivity of silver sulphide was greatly increased—a result of interest in connection with the fact that some substances exhibit luminescence only at low temperatures.

PART ii. of a paper on the cutting power of lathe-turning tools was read at the Institution of Mechanical Engineers on December 19 by Mr. George W. Burley, of Sheffield University. Part i. was read in 1913 by Prof. W. Ripper, and a number of points raised in the discussion are dealt with in the present paper, which gives an account of the continuation of the series of experiments. Among the conclusions arrived at is the fact that there is no practical cutting speed below which it is impossible to obtain a satisfactory finished surface on plain-carbon steels by the use of tools of plain-carbon tool-steel, ordinary (non-vanadium) high-speed steel, or superior (vanadium) high-speed steel, but there are upper limits as follows:—For finishing mild steel, 48 ft. to 58 ft. per minute for each of the three varieties of tool-steel; for finishing hard steel, 23 ft. to 28 ft., 17 ft. to 21 ft., and 28 ft. to 34 ft. per minute respectively for the three varieties of tool-steel mentioned above. The cutting power of a high-speed lathe tool is influenced by both the cross-sectional area of the shank of the tool and the nose-radius, but the influence of the latter factor predominates. Thus, with a number of different sections of tool-steel, an increase of 100 per cent. in nose-radius produced an average increase of cutting power of 45 per cent.; whereas an increase of the shank cross-section of the tool of 500 per cent. with a constant nose-radius produced an average increase in the cutting power of only 8·5 per cent. There is no marked difference in the net amounts of energy required per cubic inch of material removed from mild-steel and hard-steel bars at high and low cutting speeds.

Messrs. Longmans and Co. expect to publish in January "Applied Aero-Dynamics," L. Bairstow; "The Design of Screw Propellers, with Special Reference to their Adaptation for Aircraft," H. C. Watts; "Telephonic Transmission, Theoretical and Applied," J. G. Hill; and vol. i. (The Extremities) of "A Manual of Practical Anatomy," Prof. T. Walmsley. Others books, in the press or in preparation, by the same house are:—"An Introduction to the Study of Terra Sigillata, Treated from a Chronological Standpoint," Dr. F. Oswald and T. D. Pryce; "Structural Steelwork," E. G. Beck; "Tuberculosis and Public Health," Dr. H. H. Thomson; "Food Supplies in Peace and War," Sir R. H. Rew; vols. ii. and iii. of "A Manual of Practical Anatomy," Prof. T. Walmsley; and, as already announced, "The Life and Work of Sir Jagadis Chandra Bose," Prof. P. Geddes.